



# PATENT ABSTRACTS OF JAPAN

(11)Publication number:

06-040485

(43)Date of publication of application: 15.02.1994

(51)Int.CI.

B65D 85/76

A23L 3/00

(21) Application number: 04-189622

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(22) Date of filing:

16.07.1992

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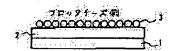
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#### (54) CHEESE PACKAGING MATERIAL

### (57) Abstract:

PURPOSE: To remove film in a straight line from cheese package so as to prevent the contact of air with the remaining block cheese by using the plastic film coated with the thermoplastic resin adherent to the surface of block cheese and having the property of freely tearing in one direction according to the molecular orientation.

CONSTITUTION: The plastic film 1 for use as the cheese packaging material has one side intended for contact with block cheese coated with a wax mixture 2 consisting of an adherent thermoplastic resin, to which a coat of corn starch 3 is applied as a blocking preventive material. As for the plastic film 1, any one of polyethylene, polypropylene and polyester having the property of easily tearing in one direction according to the molecular orientation is used. As to the thermoplastic resin, the one containing 10-40 pts.wt. polyisobutylene, 10-30 pts.wt. polyethylene, 10-40 pts.wt. paraffin wax and 20-50 pts.wt. micro-crystalline wax is used.



### LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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#### DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001

[Industrial Application] this invention relates to the block cheese head (the lump of a cheese head is said) which is food, and its packing.

[0002]

[Description of the Prior Art] The technology which is made to stick using the plastic film with which the coat of the thermoplastics which has adhesion in the front face of a block cheese head was carried out as wrapping of a block cheese head so that the open air cannot be touched on the front face of a block cheese head, and is packed is known. This is the useful outstanding technology, in order to avoid transformation of a cheese head by the selling circulation root and to maintain the freshness, is easy a manufacturing process and is widely used from a price being cheap maintainable.

[0003] Generally, in order for the material which packs a cheese head directly to laminate aluminum foil and paper in the cellophane without directivity by which moisture-proof processing was carried out, or plastic film and to give waterproofness, dampproofing, gas barrier nature, and heat-sealing nature, what coated the resin and the wax is used.

[0004] The moisture vapor transmissions of what applied to one side of a moisture proof cellophane the wax mixture fused with heat are 8 g/m2 / 24 hours or less, and heat-sealing temperature is 70 degrees C or less. This kind of thing can perform an ordinary temperature pressurization seal, is further excellent in adhesion with a cheese head, and suitable for packing a cheese head directly enough.

[0005] Eating all at once has few small cheese heads for the ordinary homes around 200g packed by such wrapping, the amount which is needed for the reason is cut with a knife each time, and they are used.

[0006]

[Problem(s) to be Solved by the Invention] Since there is no directivity in the plastic film which packs the conventional block cheese head mentioned above, if only the portion to need tends to be stripped off and it is going to cut with a knife, plastic film may be stripped off to the portion to save and it will become the factor on which the front face of a cheese-head block touches the direct open air in this case, and freshness is dropped. Moreover, when it is going to cut in the state [being packed with plastic film], even if it eats into a block cheese head, without being cut since directivity does not agree or is cut, there is a problem which does not become linear and by which some plastic film is left behind to the front face of a block cheese head.

[0007] Plastic film is left behind to the front face of the side which saves only the portion to cut linearly in it as splits in the predetermined direction without resistance when this invention solves such a problem and a block cheese head is cut with a knife in the state of adhesion, and it aims at offering the cheese-head wrapping which can avoid touching the open air and deteriorating. [0008]

[Means for Solving the Problem] In the cheese-head wrapping by the plastic film with which the coat of the thermoplastics to which this invention has adhesion in the front face of a block cheese head was carried out to at least one side, the aforementioned plastic film is characterized by having the property to be easy to split to \*\* on the other hand according to molecular arrangement.

[0009] The aforementioned plastic film is 1 of polyethylene, polypropylene, and the polyester, and, as for the aforementioned thermoplastics, it is desirable that it is the mixture containing a polyisobutylene 10 or 40 weight sections, polyethylene 10 or 30 weight sections, paraffin wax 10 or 40 weight sections, the micro crystalline wax 20, or 50 weight sections.

[0010] Another viewpoint of this invention is a block cheese head, and it is characterized by being packed so that the direction of the aforementioned molecular arrangement may be in agreement with the opening direction, and so that a coat side may touch a cheese head by the aforementioned cheese-head wrapping.

[Function] The thermoplastics stuck to the front face of a block cheese head constitutes the plastic film by which the coat was carried out by the material of a property which is easy to split to \*\* on the other hand according to molecular arrangement, and a block cheese head is packed so that the direction of molecular arrangement may be in agreement in the opening direction.
[0012] Plastic film is left behind to the portion which can tear linearly the plastic film on the block cheese head to need, and saves it by this in the state of adhesion, and the fall of the freshness by touching the open air can be prevented.
[0013]

[Example] Next, this invention example is explained based on a drawing. The expanded sectional view and <u>drawing 2</u> which show the composition of cheese-head wrapping [ in / this invention example / in <u>drawing 1</u> ] are the perspective diagram showing

the pack state of the block cheese head which used the cheese-head wrapping in this invention example.

[0014] As this invention example cheese-head wrapping is shown in <u>drawing 1</u>, the coat of the wax mixture 2 constituted by the thermoplastics which has adhesion in the front face of the side which touches the block cheese head of plastic film 1 is carried out, and corn starch 3 is further applied as a blocking prevention material on it.

[0015] Plastic film 1 has the property to be easy to split to \*\* on the other hand according to molecular arrangement, and either polyethylene, polypropylene or polyester is used as the material.

[0016] Moreover, the thermoplastics which constitutes the wax mixture 2 contains a polyisobutylene 10 or 40 weight sections, polyethylene 10 or 30 weight sections, paraffin wax 10 or 40 weight sections, the micro crystalline wax 20, or 50 weight sections.

[0017] As shown in drawing 2, it is packed by the block cheese head 4 so that the direction of molecular arrangement may be in agreement with the opening direction A with the cheese-head wrapping 5 constituted in this way.

[0018] As an example, the polyisobutylene 10 weight section of low molecular weight (10,000 or less molecular weight), The polyisobutylene 30 weight section of the amount of macromolecules (10,000 or more molecular weight), The mixture which consists of the polyethylene 10 weight section, the paraffin wax 25 weight section, and the micro crystalline wax 25 weight section is fused at 130 degrees C. polypropylene film [ by Toray Industries, Inc. ]: -- what applied corn starch to the front face as blocking prevention material is created, and linear, after using and coating one side of training fan BO-YT -22 with a roll coater -- it split and experimented in the sex Simultaneously, although the aforementioned wax mixture was applied to one side of a moisture proof cellophane as an example of comparison, it experimented. The result is shown in [Table 1].

[0019] furthermore, it seals using a heating sealing device, and cools in a refrigerator, and a block cheese head is packed in the configuration shown in <u>drawing 2</u>, and linear, after filling up the cheese-head wrapping 5 obtained by doing in this way with the cheese head warmed at 70 degrees C -- it split and the sex and the general property were measured with the above-mentioned example material of comparison The result is shown in [Table 2].

[0020] [Table 1] And as shown in [Table 2], the linearity which was excellent to the opening direction which is in agreement in the direction of molecular arrangement was shown, and the dampproofing and low-temperature seal nature which were excellent in the packing state were shown further.

[0021]

Table 11

[Table 1]						
		実施 例	比較例			
		トレファンBO *25・YT - 22 の片面にワックス混合物を 塗布したもの	両面防湿セロハン *350 の方面にワックス混合物を 塗布したも			
厚さ (μ/1枚)		115~112	114~110			
耐破度(Kg/cm²)		4. 1	3. 2			
抗張力	縦	1. 9	4. 0			
(Kg/15mm巾)	横	10.2	2. 5			
引裂強度	縦	2 4	1 7			
(g/16枚)	横	1 <b>2</b>	2 2			
手による裂け性	縦	不良	やや良好			
	横	きわめて良好	やや良好			
直線的な裂け性	縦	不良	やや良好			
	横	きわめて良好	やや良好			

[0022] [Table 2]

		実施例 -	比較例
厚 さ (μ/1 8	()	115~112	114~110
	縦	不良	やや良好
直線的な裂け性	横	きわめて良好	やや良好
透温皮 (g/m³/24hr	)	5~6	7~8
ヒートシール温 (°C)	度	5 3	5 5
ヒートシール強! (g/20mm巾)		480	450
基材フィルムと ワックスとの密着	性	良好	良好

## [0023]

[Effect of the Invention] According to this invention, as explained above, the plastic film of the arbitrary positions on a block cheese head can be torn easily linearly, and for the reason, the plastic film on the block cheese head to save is left behind with an adhesion state, and has the effect which can prevent the fall of the freshness produced when a half-used cheese-head block touches the open air.

[Translation done.]